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Tracking Online Research Engagement with Altmetrics in R

Erica Hayes

Alison Blaine

Markus Wust

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Alternative Metrics (altmetrics)

What sources does Altmetric track?

The Colours of the Donut

- Policy documents
- News
- Blogs
- Twitter
- Post-publication peer-reviews
- Facebook
- Sina Weibo
- Wikipedia
- Google+
- LinkedIn
- Reddit
- Faculty1000
- Q&A (stack overflow)
- Youtube
- Pinterest



This output has received a lot of mainstream media coverage (click on the donut to see which outlets it came from)



This research has received most of its attention from blogs, and has been referenced in public policy documents.



This research has received a lot of attention on twitter, and also been reviewed on a post-publication peer-review forum.

What scholarly identifiers does Altmetric support?

- PubMedID – typically associated with health sciences research
- arXiv ID – Physics, Mathematics & Computer Sciences
- ADS ID – Astrophysics data system
- SSRN ID – Social Sciences outputs
- RePEC ID – economics research
- Handle.net identifiers – often used in institutional repositories
- URN (Uniform Resource Name) identifiers
- ISBNs – books hosted on publisher domains and google books
- DOIs – assigned to individual articles at the point of publication, and by platforms such as figshare, ORCID, and Dryad to other outputs (including datasets, images, and more)

How is the Altmetric score calculated?

The Altmetric Attention Score is an automatically calculated, weighted count of all of the attention a research output has received. It is based on 3 main factors:

Volume	Sources	Authors
The score for an article rises as more people mention it. We only count 1 mention from each person per source, so if you tweet about the same paper more than once, Altmetric will ignore everything but the first.	Each category of mention contributes a different base amount to the final score. For example, a newspaper article contributes more than a blog post which contributes more than a tweet.	We look at how often the author of each mention talks about scholarly articles, at whether or not there's any bias towards a particular journal or publisher and at who the audience is. For example, a doctor sharing a link with other doctors counts for far more than a journal account pushing the same link out automatically.

Altmetric Bookmarklet

Article insights for individual researchers

Want to find out the Altmetric details for a paper you've published? Install our free bookmarklet for Chrome, Firefox and Safari to view the online shares and mentions of an article with a single click.

1. Add bookmarklet to your bookmarks toolbar
2. Visit any paper
3. Get article level metrics with a single click



Altmetric Bookmarklet in action...


The screenshot shows the PLOS ONE article page for "Scientists Popularizing Science: Characteristics and Impact of TED Talk Presenters" by Cassidy R. Sugimoto et al. The altmetric data is displayed in a yellow box on the right side of the article. The data includes 69 Saves, 8 Citations, 15,565 Views, and 111 Shares. A circular altmetric icon shows a score of 256. A list of social media mentions is shown, including 3 news outlets, 6 blogs, 233 tweets, 11 Facebook pages, and 5 Google+ posts. The article abstract is visible on the left, and the subject areas are listed on the right.

PLOS ONE Publish About Browse Search advanced search


OPEN ACCESS PEER REVIEWED

RESEARCH ARTICLE

Scientists Popularizing Science: Characteristics and Impact of TED Talk Presenters

Cassidy R. Sugimoto , Mike Thelwall, Vincent Larivière, Andrew Tsou, Philippe Mongeon, Benoît Macaluso

Published: April 30, 2013 • DOI: 10.1371/journal.pone.0082403

Article	Authors	Metrics	Comments	Related Content
				

Abstract

Introduction
Methods
Results
Discussion and Conclusions
Author Contributions
References

Abstract

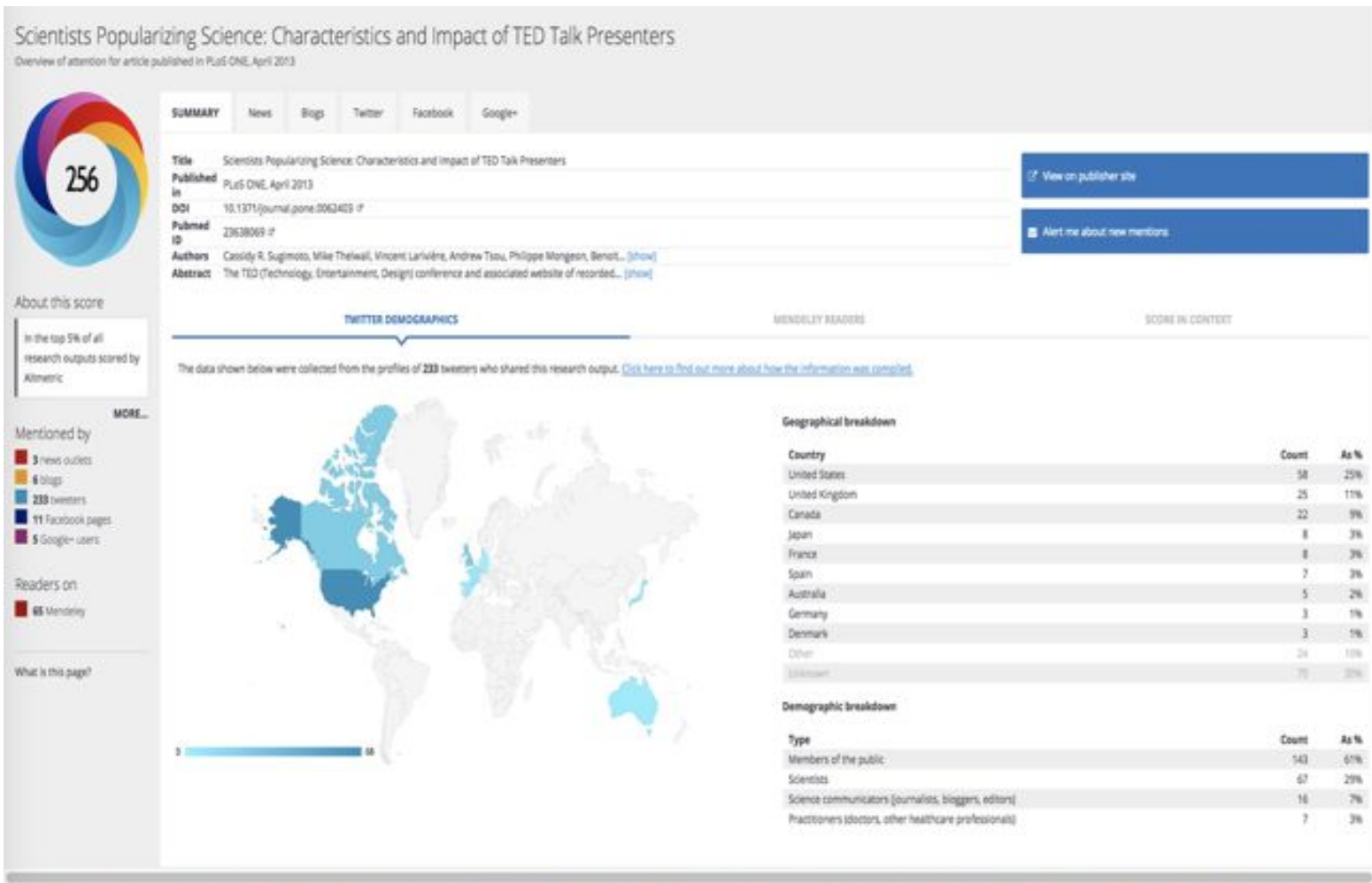
The TED (Technology, Entertainment, Design) conference and associated website of recorded conference presentations (TED Talks) is a highly successful disseminator of science-related videos, claiming over a billion online views. Although hundreds of scientists have presented at TED, little information is available regarding the presenters, their academic credentials, and the impact of TED Talks on the general population. This article uses bibliometric and webometric techniques to gather data on the characteristics of TED presenters and videos and analyze the relationship between these characteristics and the subsequent impact of the videos. The results show that the presenters were predominately male and non-academics. Male-authored videos were more popular and more liked when viewed on YouTube. Videos by academic presenters were more commented on than videos by others and were more liked on YouTube, although

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Subject Areas

- Scientists
- Online encyclopedias
- Twitter
- Facebook
- Internet

Altmetric Bookmarklet



altmetrics indicators can be gamed...

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Journal of Physics A: Mathematical and Theoretical

FAST TRACK COMMUNICATION

Can apparent superluminal neutrino speeds be explained as a quantum weak measurement?

M V Berry¹, N Brunner¹, S Popescu¹ and P Shukla²

Published 11 November 2011 • 2011 IOP Publishing Ltd

[Journal of Physics A: Mathematical and Theoretical](#), Volume 44, Number 49



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Citations ▾

+ Article information

Abstract

Probably not.

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Article Metrics

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Can apparent superluminal neutrino speeds be explained as a quantum weak measurement?

Overview of attention for article published in Journal of Physics: A Mathematical & Theoretical, January 2011



About this Attention Score

In the top 5% of all research outputs scored by Altmetric

MORE...

Mentioned by



Readers on



SUMMARY

News

Blogs

Twitter

Facebook

Wikipedia

Google+

Reddit

Misc.

? So far, Altmetric has seen 7573 tweets from 7317 users, with an upper bound of 17,592,567 followers.

Showing items 1–100

1 2 3 4 5 6 7 8 9 ... 75 76



David Maher
@DrDavidMaher

RT @OpenResSalford: The abstract for this article is still my favourite. Short and sweet <https://t.co/94lXKl3ywO> <https://t.co/C75qmlchfu>

11:26AM



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05 Sep 2017



Tazio Vanni
@taziovanni

Best abstract ever <https://t.co/NpCo0PfxVc> <https://t.co/l47eEPvAPe>

26 Aug 2017



Matthew Skelton
@matthewpskelton

RT @rchatley: @sf105 @matthewpskelton Here's a paper with a good abstract... <https://t.co/a42zhTSEk>

22 Aug 2017

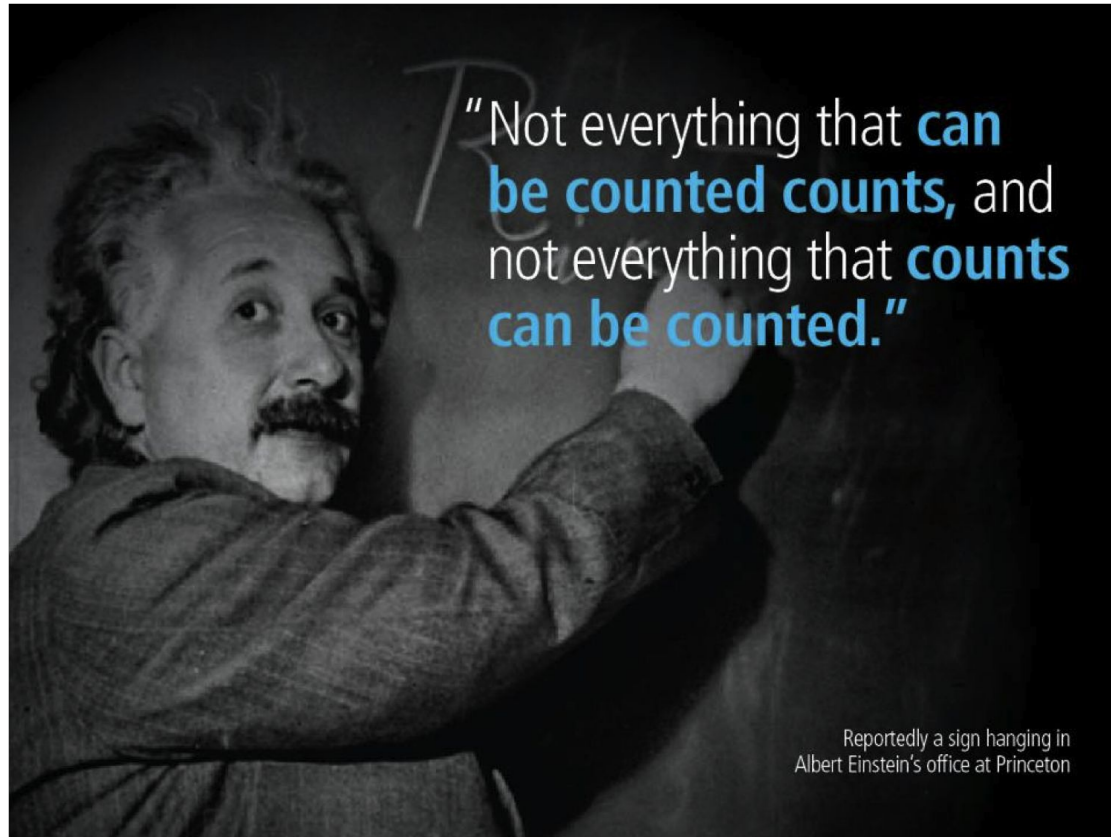


Robert Chatley
@rchatley

@sf105 @matthewpskelton Here's a paper with a good abstract... <https://t.co/a42zhTSEk>

22 Aug 2017

Keep in mind...



Software



Latest version: R-3.4.4
Base Code Package,
required



Most popular Graphical
interface for writing R code
(not required, but useful)

Software download instructions

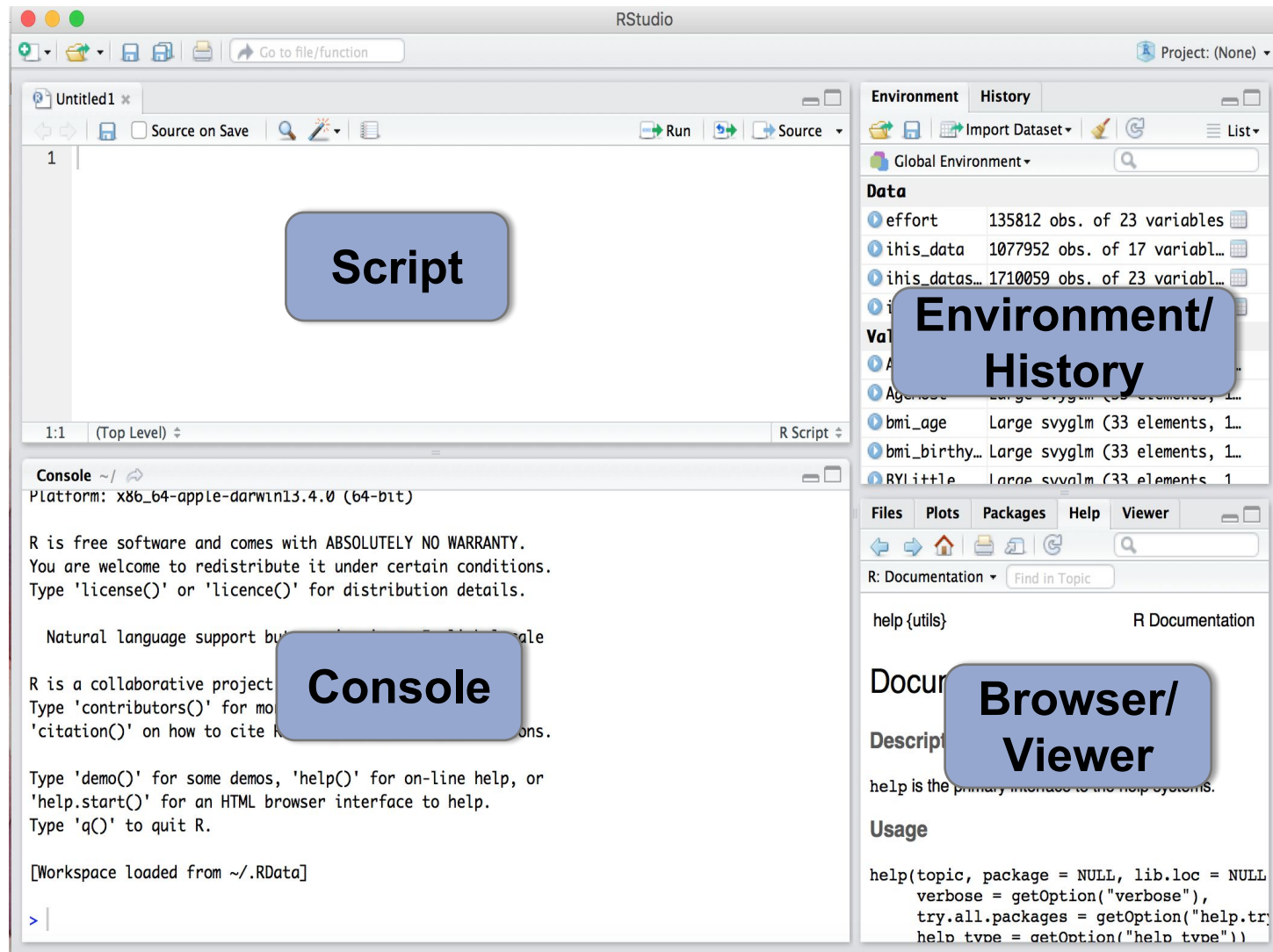
1) Download R

- R can be downloaded from any of the CRAN mirrors - <https://cran.r-project.org/mirrors.html>. It is available for Windows, Linux and Mac.
- After downloading R, open the package and install it.

2) Download R Studio Desktop (Free Version)

- Install R Studio following download.
- <https://www.rstudio.com/products/rstudio/download>

RStudio



packages we will be
using today

base,
stats,
utils

`lapply()`
`sapply()`
`select()`
`na.omit()`
`gsub()`
`write.csv()`

These packages are already included in R

rAltmetric

```
altmetrics(doi="10.1002/p  
rca.201400084")  
altmetrics_data()
```

cited_by_**x**_count

Mention count breakdown, where **x** is one of:

- **posts** total number of posts
- **delicious** number of Delicious users
- **fbwalls** number of Facebook accounts
- **feeds** number of blogs
- **forum** number of internet forums users e.g. Seqanswers
- **gplus** number of Google+ users
- **linkedin** number of LinkedIn users
- **msm** number of news outlets
- **peer_review_sites** number of peer review sites
- **pinner**s number of Pinterest users
- **policies** number of policy sources
- **qs** number of questions, answers or comments on Stack Exchange sites (inc. Biostar)
- **rdts** number of Reddit users
- **rh** number of research highlight platforms
- **tweeters** number of Twitter users
- **videos** number of YouTube channels
- **weibo** number of Sina Weibo users
- **wikipedia** number of pages on Wikipedia

Example

Altmetrics on: "Exercise and Pharmacotherapy in the Treatment of Major Depressive Disorder" with altmetric_id: 706780 published in Psychosomatic Medicine.

	stats
cited_by_fbwalls_count	3
cited_by_feeds_count	4
cited_by_gplus_count	1
cited_by_msm_count	2
cited_by_posts_count	38
cited_by_tweeters_count	22
cited_by_videos_count	1
cited_by_wikipedia_count	1
cited_by_accounts_count	34

plyr

ldply()

The tidyverse

Components



tidyverse

`select()` - dplyr

`filter()` - dplyr

`read_csv()` - readr

`mutate()` - dplyr

`gather()` - tidyr

`ggplot()` - ggplot2

`ggsave()` - ggplot2

`facet_wrap()` - ggplot2

`coord_flip()` - ggplot2

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